

CLAIMS

We Claim:

1. A mobile host that moves both within and between interconnected wireless-access micro-mobility domains, wherein each domain comprises an IP server that provides the mobile host with a temporary care-of-address while the mobile host is present in the domain and which address is used to route packets to and from the domain, and wherein each domain further comprises a plurality of base stations interconnected through a set of nodes that automatically establish up-link and down-link routing paths within the domain to and from the mobile host, said mobile host comprising:

an MMP daemon that monitors the mobile host's movement between base stations and based on broadcast messages from the base stations and the IP server within each domain, determines if the movement is within a domain or to a new domain, wherein if the movement is within the domain said MMP daemon updates a down-link routing path in the domain to the mobile host, and wherein if the movement is to the new domain said MMP daemon establishes a new down-link routing path in the new domain to the mobile host and causes the mobile host to obtain a new care-of-address from the IP server in the new domain;

a first sub-system for managing non-real-time applications at the mobile host wherein said first sub-system captures packets transmitted by the non-real-time applications and changes an originating IP address of the transmitted packets to a permanent IP address associated with the mobile host and further captures received packets intended for the non-real-time applications and changes a destination address of the received packets to the permanent IP address, and wherein said first sub-system monitors for the MMP daemon to change the mobile host's care-of-address and conveys detected changes to corresponding hosts to which the mobile host is conducting non-real-time communications; and

a second sub-system for managing real-time applications at the mobile host wherein said second sub-system monitors for the MMP daemon to change the mobile host's care-of-address and conveys detected changes to corresponding hosts to which the mobile host is conducting real-time communications.